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REMARKS**Introduction**

Claims 1-14 were under examination in this application and stand rejected. By this Amendment, applicants have amended claims 1, 7, 10 and 13 and cancelled claims 4-6, 8, 11, 12 and 14. Accordingly, claims 1-3, 7, 9, 10 and 13 are in the application. Claims 1 and 10 are independent.

Rejections Under 35 U.S.C. § 103(a)

Claims 1-7 stand rejected under 35 U.S.C. § 103 over a proposed hypothetical combination of U.S. Patent No. 5,995,590 (Brunet) and U.S. Patent No. 6,952,809 (Beranek); claims 8-14 stand rejected under 35 U.S.C. § 103 over a proposed hypothetical combination of Brunet, Beranek and U.S. Patent No. 4,746,913 (Volta).

By this Amendment, claims 4-6, 8, 11, 12 and 14 have been cancelled, and thus, the rejections to those claims have been mooted.

By this Amendment, claim 1 has been amended to recite a telephone interface for a handicapped individual comprising a processor configured to control the telephone interface, a public switched telephone network (PSTN) interface connected to the processor and to the PSTN, a sound generator connected to the processor and to the PSTN interface configured to generate synthesized speech responsive to said processor, and an input device connected to the processor and including a sensor placed adjacent to a controllable voluntary muscle of an individual, the input device configured to generate a signal to the processor responsive to the sensor detecting voluntary muscle movement.

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Claim 1 has also been amended to recite the telephone interface comprising a display device connected to the processor and configured to display a first menu, the first menu comprising a plurality of telephony functions, the telephony functions including selectable preset telephone numbers and individual numbers that can be used to build a telephone number, wherein the processor is configured to control the PSTN interface according to receiving a signal when one of the telephony functions is active, the processor being further configured to cause the PSTN interface to initiate a telephone call based on the telephony functions of the first menu.

The display device is further configured to, after the PSTN interface initiates the telephone call, display a second menu, the second menu comprising speech functions, the speech functions comprising words and phrases, wherein the processor is configured to cause the sound generator to generate speech according to receiving a signal when one of the words and phrases is active, the processor further configured to highlight an active area of each of the first and second menus responsive to the processor when each of the first and second menus are displayed, the processor being further configured to periodically change the active area of the displayed one of the first or second menus, the processor further configured to perform a function described by the active portion of the menu responsive to the signal.

Thus, amended claim 1 recites, *inter alia*, a telephone interface with a display device "to display a first menu, the first menu comprising a plurality of telephony functions, the telephony functions including selectable preset telephone numbers and individual numbers that can be used to build a telephone number." The display device, "after the PSTN interface initiates the telephone call, display[s] a second menu, the second menu comprising speech functions, the speech functions comprising words and phrases, wherein the processor is configured to cause the sound generator to generate speech according to receiving a signal when one of the words and

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phrases is active."

Beneficially, a processor "is configured to periodically change the active area of a displayed one of the first or second menus, the processor further configured to perform a function described by the active portion of the menu responsive to the signal."

Thus, by way of the claimed invention, a handicapped individual is provided with a "first menu comprising a plurality of telephony functions, the telephony functions including selectable preset telephone numbers and individual numbers that can be used to build a telephone number." From this first menu, the handicapped individual can initiate a telephone call. Once the telephone call is initiated, the handicapped individual is provided with a second menu, the second menu comprising speech functions, the speech functions comprising words and phrases to generate speech according to receiving a signal when one of the words and phrases is active. Thus, by way of the displayed first menu, the call is initiated, and by way of the subsequently displayed second menu, a conversation can be conducted.

Also beneficially, when each of the first and second menus are displayed, the interface periodically changes the active area of the displayed one of the first or second menus, to facilitate selection of a function the handicapped individual.

As described in the specification of the present application as published, at ¶¶ [0009] through and [0011]:

[0009] Accordingly, a first menu is displayed to the individual. This menu presents selectable preset ("speed calling") telephone numbers and individual numbers that can be selected to build a telephone number. When the telephone number is complete, a telephone call may be automatically placed over a telephone network or may be placed when another menu selection is made (e.g., "dial" is selected).

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[0010] The PC then displays a different screen that presents a menu of phrases, words and letters to the individual. The individual selects a word or phrase and the PC causes a text-to-speech unit to speak the selected word or phrase through the modem. Further, the individual may build words by selecting individual letters. Each letter appears in a box on the screen when it is selected. When the word is complete, the user selects the word, which is then sent to the text-to-speech unit. When the individual is finished with the call, he or she can select a disconnect menu entry, which controls the modem to end the call.

[0011] Advantageously, each item on each menu is active for a predetermined period of time. The period of time is variable, depending upon the individual's ability to read the item, process this information and make a selection. The layout of the menu may be set up to group like words and numbers or in any manner that is most easily understood by the individual. The sensor may be a piezo-electric transducer in contact with a voluntary muscle.

By the present Amendment, independent claim 10 has been amended, in a similar manner to that of claim 1, to recite displaying a first menu on the display indicating a plurality of telephony functions. The telephony functions include selectable preset telephone numbers and individual numbers that can be used to build a telephone number. The method continues with periodically making one area of the first menu active, and performing one or more functions, related to initiating a telephone call, described by the active area of the first menu responsive to a signal from said input device initiating a telephone call based on the displayed functions on the first menu. The method includes displaying, after the phone call is initiated, a second menu, the second menu comprising speech functions, the speech functions comprising words and phrases, and periodically making one area of the second menu active; causing the sound generator to generate speech according to receiving a signal when one of the words and phrases is active.

Applicants respectfully submit that none of the cited references, either alone, or in

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any proposed hypothetical combinations, teach all of the features recited by amended independent claims 1 and 10 of the present application. Specifically, none of the cited references describe or provide motivation for the inventive combination of a "first menu comprising a plurality of telephony functions, the telephony functions including selectable preset telephone numbers and individual numbers that can be used to build a telephone number," "a second menu, the second menu comprising speech functions, the speech functions comprising words and phrases to generate speech according to receiving a signal when one of the words and phrases is active," and "periodically chang[ing] the active area of the displayed one of the first or second menus."

Volta describes an electronic box that scans through a predetermined character set to allow selection by a handicapped person. Because Volta describes a predetermined character set on a box, Volta does not describe the beneficial use of a displayed first menu to initiate a call, and an automatically displayed second menu to facilitate a telephone conversation as claimed by the present application. In contrast, Volta, with its scanned predetermined character set, teaches away from the use of the claimed first and second menus to help guide a handicapped person. Instead, Volta describes a very different solution to the problem by describing selectively speeding up and slowing down the scan rate of the predetermined character set. (See Volta at col. 2, lns. 6-15.) Thus, not only does Volta not teach or describe the claimed use of first and second menus in combination with the other recited features, but Volta provides no motivation for the use of first or second menus, and actually teaches away from their use.

In addition, Volta describes use with entering characters into a "computer, video terminal, printer" or "typewriter," (See Volta at col. 2, lns. 32-33), but does describe use with a

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telephone system.

Beranek describes a head mounted electrode for navigating a window-based program on a computer. Beranek does not describe the combination of features recited by the claims of the present application, such as the use of first and second windows. In addition, Beranek does not describe use with a telephone system.

Brunet describes a system for converting text to voice for a telephone system. Brunet does not describe the features claimed by the present application, such as, for example, a "first menu comprising a plurality of telephony functions, the telephony functions including selectable preset telephone numbers and individual numbers that can be used to build a telephone number," "a second menu, the second menu comprising speech functions, the speech functions comprising words and phrases to generate speech according to receiving a signal when one of the words and phrases is active," and "periodically chang[ing] the active area of the displayed one of the first or second menus."

Thus, applicants respectfully submit that neither Brunet, nor Beranek, nor Volta, taken alone, or in combination, describe, teach, or provide motivation for all of the features recited by claims 1 and 10 of the present application. Accordingly, applicants submit that amended independent claims 1 and 10 of the present application are patentable over any proposed hypothetical Brunet-Beranek-Volta combination, and withdrawal of the rejections to those claims is respectfully requested.

Each of claims 2, 3, 9 and 13 depend from one of claims 1 and 10. Accordingly, applicants submit that each of claims 2, 3, 9 and 13 is patentable over any proposed Brunet-Beranek-Volta combination, and withdrawal of the rejections to those claims is respectfully requested.

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Moreover, applicants submit that the proposed hypothetical Brunet-Beranek-Volta combination is improper because the references do not provide any motivation for the proposed combination. Indeed, neither Beranek nor Volta even discuss use of a system with a telephone device, as is claimed by the present application. Accordingly, for this additional reason, applicants submit that each of the claims of the present application is patentable over any proposed Brunet-Beranek-Volta combination, and withdrawal of the rejections to the claims is respectfully requested.

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CONCLUSION

In view of the above remarks, reconsideration and an early allowance of the present application is respectfully requested. If any additional fee is deemed necessary for this Amendment to be entered and considered by the Examiner, then the Commissioner is authorized to charge such fee to Deposit Account No. 501358.

Applicants' undersigned attorney may be reached by telephone at (973) 597-2500.

All correspondence should continue to be directed to our address listed below.

Respectfully submitted,



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